EXHIBIT S

205 419

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Cont. Application of)
)
SHMUEL CABILLY ET AL.)
)
BASED ON ORIGINAL APPLICATION)
) Art Unit: 185
Serial No. 06/483,457)
) Examiner: J. HULEATT
Filed: APRIL 8, 1983)
)
For: RECOMBINANT IMMUNOGLOBIN)
PREPARATIONS)

PRELIMINARY AMENDMENT

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Please cancel claim 42.

Please add the following claims:

53. A method comprising

a) preparing a DNA sequence consisting essentially of DNA encoding an immunoglobulin selected from the group consisting of an immunoglobulin heavy chain, light chain, and Fab region, said immunoglobulin having specificity for a particular known antigen;

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b) inserting the DNA sequence of step a) into a replicable expression vector operably linked to a suitable promoter;

c) transforming a prokaryotic or eukaryotic microbial host cell culture with the vector of step b);

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d) culturing the host cell; and

e) recovering the immunoglobulin from the host cell culture said immunoglobulin being capable of binding to a known antigen.

54. The method of claim 53 wherein the heavy or light chain are the heavy or light chains of anti-CEA antibody.

55. The method of claim 53 wherein the heavy chain is of the gamma family.

56. The method of claim 53 wherein the light chain is of the kappa family.

57. The method of claim 53 wherein the vector contains DNA encoding both a heavy chain and a light chain.

58. The method of claim 53 wherein the host cell is E. coli or yeast.

59. The method of claim 58 wherein the heavy chain, light chain or Fab region is deposited within the cells as insoluble particles.

60. The method of claim 59 wherein the heavy or light chains are recovered from the particles by cell lysis followed by solubilization in denaturant.

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61. The method of claim 53 wherein the heavy or light chain is secreted into the medium.

62. The method of claim 53 wherein the host cell is a gram negative bacterium and the heavy or light chain is secreted into the periplasmic space of the host cell bacterium.

63. The method of claim 53 further comprising recovering both heavy and light chain and reconstituting light chain and heavy chain to form an immunoglobulin having specific affinity for a particular known antigen.

64. The insoluble particles of heavy chain, light chain or Fab region produced by the method of claim 59.

65. A replicable expression vector comprising DNA operably linked to a promoter compatible with a suitable procaryotic or eukaryotic microbial host cell, said DNA consisting essentially of DNA encoding an immunoglobulin heavy chain, light chain or Fab region having specificity for a particular known antigen.

66. Recombinant host cells transformed with the vector of claim 66.

REMARKS

The foregoing claims are the same as the finally rejected claim set pending in the parent, and are based on the original specification and claims as is described in the prosecution of the parent application.

Respectfully Submitted,
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